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SELECTED BASIC SCIENCE BOOKS IN THE REFERENCE COLLECTION OF THE NATIONAL LIBRARY OF MEDICINE

Compiled by
Marjory H. Wright

U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
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May 1964

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These books, published for the most part since 1957, have been found to be of particular interest to librarians and to readers for a variety of reasons. For example, there are widely-known textbooks, standard works, books bringing together for the first time information previously scattered through the literature, books with unusually extensive bibliographies, comprehensive treatises in many volumes, atlases, and handbooks of quantitative data. Not included, in general, are symposia and annual review series.

For each book an annotation of a factual nature is given, and, wherever possible, an evaluation of the work is quoted from a review published in a scientific journal.

Anson, B. J. An atlas of human anatomy. 2d ed. Philadelphia, Saunders, 1963. 632 p.

Regional approach. Attempt made to present dissector with "non-conformity as a salient feature of every bodily system." More than 150 illustrations added since 1st ed (1950). "The book is very well illustrated, although a considerable variation in the style of the illustrations is noticeable. . . .The present atlas serves its purpose admirably and is recommended for any one who is a serious student of anatomy." D. L. Bassett. JAMA 186:168, 1963

Gardner, Ernest and others. Anatomy; a regional study of human structure. Philadelphia, Saunders, 1960. 999 p.

Author describes arrangement of book as "moderate regionalism" since within any given region there are systemic considerations. References both in footnote form and at ends of chapters. "The text is incisive and clear, filled throughout with informative discussions of up-to-date information of the sort that brings the subject of human anatomy to life. . . .Yet at the same time there is no apparent loss of essential anatomical information." D. L. Bassett. Amer J Trop Med 10:111, 1961

Gray, Henry. Gray's Anatomy; descriptive and applied. 33d ed. Edited by D. V. Davies, F. Davies. London, Longmans, Green, 1962. 1632 p.

Arranged systematically. Includes 1314 illustrations of which 56 are x-ray plates. 70 new figures and plates since 32d ed (1958). Includes brief biographical sketch of Henry Gray. References given as footnotes. "Without question the first impression is that for a book of its size--which must be long in the press--it is remarkably up to date, with numerous, well-selected references to the current literature. . . .there is little to criticize and much to praise in this fresh edition. . . ." E. W. Walls. J Anat 97:297, 1963

Hollinshead, W. H. Textbook of anatomy. New York, Harper and Row, 1962. 1047 p.

Divided into two general parts--the first, very brief, devoted to systemic anatomy; the second, to regional anatomy. 980 illustrations. Brief bibliographies at ends of chapters. "Those acquainted with Dr. Hollinshead's three volumes entitled Anatomy for Surgeons will know what to expect in this shorter volume for beginners. It is well written in the same easy style and amply illustrated with simple diagrams. . . ." D. V. Davies. J Anat 97:294, 1963

International Anatomical Nomenclature Committee. Nomina anatomica. 2d ed. Amsterdam, Excerpta Medica Foundation, 1961. 99 p.

Represents revision of 1st ed (1955)--work done at 5th International Congress of Anatomists (Oxford, 1950) and approved at 6th Congress (Paris, 1955) and 7th Congress (New York, 1960). Contains 493 modifications of 1955 list. Introduction gives detailed account of various congresses and decisions made.

Woerdeman, M. W. Nomina anatomica Parisiensia (1955) et B. N. A. (1895). Utrecht, Oosthoek, 1957. 174 p.

Preface (English, French, German, Spanish, Portuguese) presents brief historical sketch of systems of anatomical nomenclature. Terms arranged in alphabetical order.

Wolf-Heidegger, Gerhard. Atlas der systematischen anatomie des menschen. Atlas of systematic human anatomy. 1st and 2d eds. Basel, Karger, 1957-62. 3 v.

All volumes completely bilingual. V. 1 (2d ed, 1961) on skeleton and muscle system. 352 illustrations mostly in color. V. 2 (1st ed, 1962) on viscera, sense organs, skin, heart and spleen. 343 illustrations. V. 3 (1st ed, 1957) on nervous system, blood vessels and lymph system. 172 illustrations. "The illustrations are mainly half-tone drawings of excellent detail. . . .Some illustrations are x-ray photographs of superb quality. . . .This atlas is recommended without reservation. . . ." Canad Med Ass J 87:682, 1962

Zuckerman, Solly. A new system of anatomy. London, Oxford University Press, 1961. 579 p.

Regional anatomy. Designed as a practical book to be used in conjunction with laboratory work. Arranged according to sequence of dissections in classroom. No bibliography. "Sir Solly is renowned as a pioneer in experimentation with the preclinical course and here he records the outcome of fifteen years' experience in the provision of instructions for dissecting-room work. . . .So far as possible, figures are close to the relevant text. . . ." Lancet No. 7224:306, 1962

B I O C H E M I S T R Y

General

Florkin, M., Mason, H. S., eds. Comparative biochemistry, a comprehensive treatise. New York, Academic Press, 1960- . 6 v. proposed. 4 v. published to date.

Aim of series is to provide "sound, critical, and provocative summary of present knowledge in field" of comparative biochemistry, which attempts to compare physicochemical properties of every form of life of all ages reaching back to origins. "/V. 1/ initiates a long needed integration of the vast store of facts and theories that have been derived from a multitude of investigations. . . .the reviewer strongly recommends it to all students, teachers, and research workers. . . ." E. E. Jacobs. J Amer Chem Soc 83:3923, 1961

Florkin, M., Stots, E. H., eds. Comprehensive biochemistry. Amsterdam, Elsevier, 1962- . V. 1-3, 5, 9-11 published to date.

Complete set will be in five sections: Sect. 1, Physicochemical and organic aspects of biochemistry. Sect. 2, Chemistry of biological compounds. Sect. 3, Biochemical reaction mechanisms. Sect. 4, Metabolism. Sect. 5, General biology; general index. Intended as advanced treatise to assemble principle areas of biochemistry into a single set of books. Bibliographies with chapters vary from only 3-4 references to very lengthy lists. "Taken as a totality the topics chosen for review in Section 1 have accomplished their central purpose of helping the advanced student and investigator appreciate more keenly the origins and future directions of biological chemistry." W. R. Frisell. J Chem Educ 30:A675, 1963

Greenberg, D. M., ed. Metabolic pathways. 2d ed. New York, Academic Press, 1960-1. 2 v.

Second edition of Chemical pathways of metabolism. Attempt to survey existing knowledge of chemical steps in metabolism of constituents of major importance in living organisms. Chapters by experts in particular areas. Very extensive bibliographies with each chapter. "This volume /1/ is, therefore, highly recommended to instructors of advanced courses in metabolism, to the practicing biochemist. . .and to those anxious to review the current status in areas covered in this volume." P. K. Stumpf. Arch Biochem 95:185, 1961 ". . . .this book /V. 2/ meets a well defined need for special and authoritative surveys in metabolism. . . ." L. L. Miller. J Amer Chem Soc 84:3414, 1962

Kleiber, Max. The fire of life; an introduction to animal energetics. New York, Wiley, 1961. 454 p.

Title chosen to indicate book is essentially limited to classical aspects of metabolism and nutrition. Intended merely as introduction to bioenergetics. Very extensive bibliography (22 p). "Lavoisier's important dictum that respiration is a kind of combustion is quoted at the outset in this book. It becomes the basis for a magnificent synthesis of scientific information. . . ./the book/ can be recommended both to students of nutrition and to the general medical reader." F. T. Jung. JAMA 179:917, 1962

Long, Cyril, ed. Biochemists' handbook; compiled by one hundred and seventy-one contributors. London, Spon, 1961. 1192 p.

Intended as source of data (mainly quantitative) for research biochemists. Five major divisions: chemical (physical and organic), enzymological, metabolic, analytical, and physiological data. "This is a very substantial compilation of short articles and tables by a large number of distinguished contributors from many parts of the world, which has entailed an immense amount of devoted editorial work for which we must be grateful." J Path Bact 84:266-7, 1962

Amino Acids and Proteins

Albanese, A. A., ed. Protein and amino acid nutrition. New York, Academic Press, 1959. 604 p.

Detailed presentation of current state of knowledge in this field by sixteen contributors. Extensive bibliographies with each chapter. "The book is recommended reading for all students of nutrition, for it serves to bring together the extensive literature of the past ten years in excellent discussions. . . ." T. H. Jukes. Arch Biochem 88:388, 1960

Greenstein, J. P., Winitz, M. Chemistry of the amino acids. New York, Wiley, 1961. 3 v.

Emphasis on organic and physical chemistry and on role in nutrition of variety of living forms. Literature covered up to close of 1958. Metabolism omitted. V. 1, 2, consider amino acids as chemical compounds. V. 3 investigates each amino acid in detail. Very extensive bibliographies follow each chapter. "The monograph. . . will remain the definitive work in the field for many years to come. The more than 6500 references. . .provide the reader with a coverage of the subject through 1958, and only when information of considerable detail is needed will the user need to consult the original publications. . . ." C. G. Baker. Arch Biochem 94:548, 1961

Scheraga, H. A. Protein structure. New York, Academic Press, 1961. 305 p.

Intended primarily to present quantitative aspects of physicochemical approach to protein structure. Covers such subjects as hydrodynamic properties of protein solutions, denaturation, limited proteolysis. Bibliographies with each chapter. "This is not a book for the novice in protein biophysical chemistry. . . .the monograph. . .will be welcomed in all laboratories devoted to the study of protein structure and function." I. M. Klotz. Arch Biochem 99:541, 1962

Carbohydrates

Whistler, R. L., Wolfrom, M. L., eds. Methods in carbohydrate chemistry. New York, Academic Press, 1962- . 5 v. proposed. 3 v. published to date.

Designed to provide useful set of reliable methods for use by chemists and biochemists in routine or experimental laboratory work. Each method described by one of numerous contributors. References follow each article. V. 1, sugars; V. 2, carbohydrates; V. 3, cellulose; V. 4, starch; V. 5, general polysaccharides. "The editors have succeeded in compiling a vast amount of practical data which will undoubtedly save the active research worker much enquiry and literature searching for reliable experimental methods." J. S. Brimacombe. Arch Biochem 100:163, 1963

Cholesterol

Cook, R. P., ed. Cholesterol; chemistry, biochemistry, and pathology. New York, Academic Press, 1958. 542 p.

Intended for use not only by researchers working with cholesterol but for all concerned with wider aspects of biology, chemistry, and medicine. Written by fifteen contributors. References, particularly of a review nature, with each chapter. Appendix of practical methods. "A tremendous amount of information has been compressed into a relatively short space in this book. . .despite this, the book is unusually readable and continuity is well maintained. Furthermore, in most chapters correlations are made wherever possible with material in the remainder of the book. . . ." R. G. Langdon. Arch Biochem 82:237, 1959

Enzymes

Boyer, P. D. and others, eds. The enzymes. 2d ed. New York, Academic Press, 1959- . 8 v. proposed. 7 v. published to date.

Intended as exhaustive treatise on enzymes and enzyme action at molecular level. Although extensive revision of 1st ed (1950) for most part, some material in this edition intended only as supplementary to earlier edition. Chapters written by authorities in individual fields. Numerous references in footnote form. Volume 8 will contain topical indexes for all volumes. ". . . .the complete treatise represents a compulsory acquisition by libraries and by laboratories which are actively engaged in biochemical research. The Enzymes will be the standard reference work in this field for many years to come." E. L. Smith. Arch Biochem 91:335, 1960

Ciba Foundation for the Promotion of International Cooperation in Medical and Chemical Research. Ciba Foundation Symposium on enzymes and drug action. Sponsored jointly with Co-ordinating Committee for Symposia on Drug Action. Edited by J. L. Manger (Committee) and A. V. S. de Reuck (Ciba Foundation). Held, London, 20-23 March 1961. Boston, Little, Brown, 1962. 556 p.

Sessions at Wellcome Bldg on: enzymes as primary parts of drug action; active transport; multiple mechanisms; receptors; altered drug metabolism; drug metabolism; subcellular aspects. Sessions at Ciba Foundation: drug-enzyme interaction at molecular level; interaction at subcellular and cellular levels. Panel discussions both places. Short to medium length bibliographies at end of each paper. "This volume succeeds admirably in presenting both specific application of biochemistry to pharmacology and in considering some areas where biochemistry and pharmacology have come together. . . ." J. R. Fouts. Arch Int Med 111:396, 1963

Colowick, S. P., Kaplan, N. O., eds. Methods in enzymology. New York, Academic Press, 1955- . 7 v. proposed. 5 v. published to date.
First comprehensive compilation in English of methods used in study of enzymes. Primary aim to give laboratory workers directions for preparations and assay (V. 1,2,5,6), preparation and determination of substrates (V. 3), and for special techniques (V. 4). Numerous references in footnote form. "Editors, authors, and publishers rendered a great service to biochemists for making the appearance of these volumes possible." H. Tauber. J Amer Chem Soc 79:3300, 1957

Dixon, M., Webb, E. C. Enzymes. London, Longmans, Green, 1958. 782 p.
Concerned with general principles rather than with discussion in detail of individual enzymes. Contains complete list of enzymes (tabular form) known up to 1958 (659). Bibliography of 2300 references. "For the advanced student. . .this book will prove of immense value. . . ./The book/ is very well printed, contains some excellent plates of most enzymes which have been obtained in crystalline form, and many text figures which are very well set out and explained." Enzymologia 20:115, 1958

Greenberg, D. M., Harper, H. A., eds. Enzymes in health and disease. Springfield, Ill., Thomas, 1960. 459 p.
Composed of papers of 26 contributors at course given at University of California Medical Center, 1959. After general discussion, there are papers on such topics as molecular disease, mechanisms of enzymatic reactions, interrelations between enzymes and hormones. Moderate length bibliographies with chapters. "The contributions are well prepared, explained, and illustrated. . . .this book will be of great interest to clinicians who are interested in the direction of our future understanding and practice of medicine." E. E. Mason. Arch Int Med 106:907, 1960

Fatty Acids

Markley, K. S., ed. Fatty acids; their chemistry, properties, production, and uses. 2d ed. New York, Interscience Publishers, 1960. Pts 1 and 2 published.
Series will be extended to several volumes. Attempt to present most comprehensive work on subject yet written. Complete rewriting of 1st ed (1947). Extensive bibliographies at ends of chapters. "This volume /Pt.1/ is undoubtedly the most comprehensive work available on the subjects covered. It will be indispensable to workers in the fatty acid industry and related industries. . . ." R. A. Swenson. J Amer Chem Soc 84:1768, 1962

Fluids and Electrolytes

Statland, Harry. Fluid and electrolytes in practice. 3d ed. Philadelphia, Lippincott, 1963. 329 p.

Extensive revision since 2d ed (1957). Several chapters by authors other than Statland. Two general parts: general principles and application to surgery; application to special conditions. Bibliography arranged by subjects at end of book.

Foods

Albanese, A. A., ed. Newer methods of nutritional biochemistry, with applications and interpretations. New York, Academic Press, 1963. 583 p.

Primary purpose of book is to provide the graduate biochemistry student and the medical scientist with a ready and descriptive resume of recently developed biochemical procedures which have extensive applications in current nutrition research. Sections on proteins and amino acids; utilization of dietary proteins; intestinal absorption; diets and tissue enzymes; carbohydrates; fats, fatty acids, and sterols, etc. Extensive bibliographies at ends of sections.

Lipides

Bloch, K. E., ed. Lipide metabolism. New York, Wiley, 1960. 411 p.

Companion to Hanahan's Lipide chemistry for an advanced course. Thirteen contributors on such subjects as metabolism of unsaturated fatty acids, metabolism of glycerides, hormonal regulation of fatty acid metabolism. Unusually extensive bibliographies with each chapter. "The appearance of Lipide metabolism is heartily welcomed. . .since this volume collects together a wide range of subjects that have become increasingly important. . . .the volume is of considerable value to both students and investigators. . . ." P. K. Stumpf. Arch Biochem 94:348, 1961

Hanahan, D. J. Lipide chemistry. New York, Wiley, 1960. 330 p.

Designed to be used in connection with Bloch's Lipide metabolism. Isolation and purification in general discussed first and then various types of lipides, such as, phosphoglycerides, sphingolipides, lipoproteins, discussed in detail. Bibliographies of moderate length with chapters. "Despite the existence of several surveys and 'progress reports' dealing with lipid chemistry, a place has existed for a book of this type. This one is well written and well documented; it is a store of useful information. . . ." R. M. Johnson. Arch Biochem 90:324, 1960

Medical Biochemistry

Hoffman, W. S. The biochemistry of clinical medicine. 3d ed. Chicago, Year Book Medical Publishers, 1964. 802 p.

Attempt to show dynamics of disease process from biochemical point of view. Much of 2d ed (1959) modified and amended, especially chapters on lipids, proteins, and kidneys and urine. Bibliographies at ends of chapters.

Minerals

Comar, C. L., Bronner, F., eds. Mineral metabolism; an advanced treatise. New York, Academic Press, 1960- . 2 v. proposed in 4 pts. V. 1, Pt A, Pt B; V. 2, Pt B published to date.

Scope: V. 1, Pts A and B: Principles, processes, and systems (treats of physical and biological principles needed for analysis of metabolism of minerals). V. 2, Pts A and B, The Elements. Intended for specialist as critical review. Very extensive bibliographies at ends of chapters written by individual authors. "The editors and the respective contributors have performed an outstanding service in preparing these comprehensive yet selective reviews. This series of volumes should be a most widely used and useful reference work. . . ." Amer J Med Sci 243:537, 1962

Nucleotides, Nucleic Acids, Proteins

Allen, F. W. Ribonucleoproteins and ribonucleic acids; preparation and composition. Amsterdam, Elsevier, 1962. 192 p.

Goal of book is to provide exact details and background of those methods which represent some progress toward goal of ribonucleic acid in a state comparable to that in living tissues. Seven major chapters deal with such topics as, first 50 years of research on ribonucleic acids, ribonucleic acids recognized as macromolecules, successful preparations of enzymatically undegraded ribonucleic acids from yeasts. Bibliographies with chapters range from brief to moderate length.

Perutz, M. F. Proteins and nucleic acids; structure and function. Eighth Weizmann Memorial Lecture Series, April 1961. Amsterdam, Elsevier, 1962. 211 p.

Expanded version of the lectures. Five general topics: structure of proteins; myoglobin and haemoglobin; structure and replication of deoxyribonucleic acid; structure of ribonucleic acid and some ribonucleoproteins; biosynthesis of protein and ribonucleic acid; and genetic control of protein synthesis. Extensive bibliographies at end of book as well as list of suggestions for further reading. "Though the lectures were given in 1961 the book has been brought up to date, and there can be no more welcome introduction to this subject. . . .This is a most valuable book written with masterly simplicity." H. Lehmann. Brit Med J No. 5354:438, 1963

Steiner, R. F., Beers, R. F., Jr. Polynucleotides; natural and synthetic nucleic acids. Amsterdam, Elsevier, 1961. 404 p.

Systematic account of properties of natural and synthetic polynucleotides. Developments since 1955 stressed. Includes discussion of genetic functions of DNA, role of RNA, and attempts to develop genetic code, etc. Chapters have fairly extensive bibliographies. ". . . .it is certainly very useful for workers in the polynucleotide field to have all this material collected in one volume. . . .Dr. Steiner and Dr. Beers are to be thanked for sorting out such a vast amount of the present-day literature." C. B. Reese. Nature 182:837, 1961

Vogel, H. J. and others, eds. Informational macromolecules. Proceedings of a symposium, held, Rutgers University, September 5-7, 1962. New York, Academic Press, 1963. 542 p.

Attempt to bring together recent work on genetic code and on molecular mechanisms of protein synthesis. In seven parts: synthesis of polynucleotides; properties of polynucleotides; protein structure; genetic code I; protein synthesis I; protein synthesis II; genetic code II. Bibliographies with papers range from brief to extensive.

Steroids

Heftmann, E., Mosettig, E. Biochemistry of steroids. New York, Reinhold, 1960. 231 p.

Brief introduction to subject for scientists in various fields as well as for chemists. Steroids arranged for understanding of biogenetic relations and not necessarily in order of complexity. After introduction to structure and nomenclature, each class of steroids discussed in detail. Quite extensive list of review articles and monographs at end of book. "The authors have accomplished a formidable task in correlating and condensing a vast amount of information into a compact and readable form. . . ./the book/ is a valuable contribution to the steroid literature." E. V. Jensen. J Amer Chem Soc 83:3923, 1961

B I O P H Y S I C S

Beier, Walter. Biophysik; eine einführung in die physikalische analyse elementarer biologischer strukturen und vorgänge. 2d ed. Leipzig, Thieme, 1962. 591 p.

Rapid advances in biophysics caused author to bring out 2d edition only two years after first. Subject matter discussed according to such broad topics as, fundamentals of instruments, biological statistics, fundamental biochemical concepts, optical properties of biological materials, biophysics of muscle tissue. Glossary of terms and various tables of constants at end of book. References in footnote form.

Casey, E. J. Biophysics; concepts and mechanisms. New York, Reinhold, 1962. 335 p.

Intended as text for two-semester course for students in biological sciences or medicine. Introduces as much recent work as possible. Proplems and references at ends of chapters. "The presentation of the mathematical and physical principles is lucid and generously thorough . . . .This book is more advanced than Randall's 'Elements of Biophysics' and more concise than Stacy's treatise 'Essentials of Biological and Medical Physics.'" Canad Med Ass J 88:1048, 1963

Randall, J. E. Elements of biophysics. 2d ed. Chicago, Year Book Medical Publishers, 1962. 339 p.

For first year medical students and graduate students in biological sciences. Material consists of concepts ordinarily scattered through mathematics, engineering, physics, physical chemistry and physiology. 2d ed represents about 50 percent revision of 1st ed (1958). Brief bibliographies at ends of chapters.

Setlow, R. B., Pollard, E. C. Molecular biophysics. Reading, Mass., Addison-Wesley, 1962. 545 p.

Attempt to explain properties of biological systems and biological phenomena in terms of properties of molecules; therefore, comes closer to physiology than formal field of biophysics. Intended for college senior or first year graduate students. Fairly brief bibliographies at ends of chapters. ". . . .the discussion of the more physical topics is competently done, and most of the information is here. . .while the book could not be given an unqualified recommendation as a solitary text for incipient molecular biologists, there is much in it which could be read with advantage by people at a somewhat later stage." H. E. Huxley. Nature 195:634, 1962

COMPARATIVE ANATOMY AND HISTOLOGY

Andrew, Warren. Textbook of comparative histology. New York, Oxford University Press, 1959. 652 p.

Intended for use by any college student interested in biology. Subject treated from point of view of systems. Includes both vertebrate and invertebrate examples. Study questions at end of each chapter; references at end of some chapters.

Torrey, T. W. Morphogenesis of the vertebrates. New York, Wiley, 1962. 600 p.

For beginning course. Integrates comparative vertebrate anatomy and vertebrate embryology. Divided into three parts: panorama; developmental preliminaries; morphogenesis of organ systems. Brief bibliographies at ends of chapters. "Quite aside from its combining matters traditionally dealt with in separate courses, this new text also deserves praise for its vital and dynamic character. . . ./the author's/ achievement is praiseworthy from every point of view." F. Moog. Science 136:522, 1962

Brachet, J., Mirsky, A. E., eds. The cell; biochemistry, physiology, morphology. New York, Academic Press, 1959-61. 5 v.

Detailed treatise. Each chapter written by different authority in field. Extensive bibliographies at ends of chapters. V. 1, Pt. 1, Methods, Pt. 2, Problems of cell biology. V. 2, Cells and their component parts. V. 3, Chromosomes, mitosis and meiosis. V. 4, Specialized cells, Pt. 1. V. 5, Specialized cells, Pt. 2. "There is no doubt that this is, and will remain for many years, a most important series of books and a necessity for any comprehensive biological library." Science 134:324, 1961

Giese, A. C. Cell physiology. 2d ed. Philadelphia, Saunders, 1962. 592 p.

Designed to give brief account of subject to students. Deals primarily with cell and avoids treatment of problems relating to organization of cells into organisms. Bibliographies of moderate length at ends of chapters. "[A listing of the contents] can scarcely suggest the richness of this material, the clarity of presentation in the book, the wealth of new detail supplied by the electron microscope and other modern instruments, and the importance of the results as applied to everyday medicine." F. T. Jung. JAMA 183:905, 1963

Parker, R. C. Methods of tissue culture. 3d ed. New York, Hoeber, 1961. 358 p.

Many changes, including six virtually new chapters, since 2nd ed (1950). Book includes discussion of such topics as, chemically defined media; media containing naturally occurring ingredients; preparation of cells and tissues for cultivation; coverslip cultures; suspended-cell culture; cell clones; culture for virus studies. 26-page bibliography. "The book is a good manual of techniques. But more than this, it is an interesting text to read, because it has been well organized and commendably written." Amer J Med Sci 243:545, 1962

Robertis, E. D. P. de and others. General cytology. 3d ed. Philadelphia, Saunders, 1960. 555 p.

1st ed (1946) published in Spanish. Intended primarily for college courses in cytology. Extensive lists of both general and cited references at ends of chapters. "The book has grown with the years, is remarkably up-to-date, and is excellently illustrated, especially with a choice selection of electron micrographs. . . ." J. J. Biesele. Texas Rep Biol Med 19:207, 1961

Society of General Physiologists. Control mechanisms in cellular processes. Edited by D. M. Bonner. Seventh Annual Symposium. Held, Woods Hole, Massachusetts, September 1960. New York, Ronald Press, 1961. 248 p.

Nine papers on such subjects as, genetic control of enzyme structure, ribonucleic acid and the control of cellular processes, regulatory mechanisms in energy metabolism, and hormonal regulation of plant cell growth. Extensive bibliographies with papers. "Lest any biologists think. . .that the opportunities for exploration have been reduced, I hasten to refer them to this timely volume. . . .the reader is made clearly aware of the important unsolved problems. . . ." T. Hayashi. Science 135:1122-3, 1962

Willmer, E. N. Cytology and evolution. New York, Academic Press, 1960. 430 p.

Book is more concerned with interpretation of observed data than with description, according to author. In first two parts of book the importance of immediate and local environment in the activities and differentiation of cell is established and rest of book is concerned with the consequences. Lengthy bibliographies at ends of most chapters. "The book is well produced and very well written. Many of the ideas put forward are unorthodox but should be stimulating to anyone whose mind is not closed to new ways of looking at old problems." P. R. Lewis. Arch Biochem 92:194, 1961

E M B R Y O L O G Y

Hamilton, W. J. and others. Human embryology. 3d ed. Cambridge, Eng., Heffer, 1962. 493 p.

Extensive additions and revisions since 2d ed (1952) have brought book up to date in light of recent investigations especially on such subjects as, chromosomal behavior, urogenital systems, development of human placenta, comparative embryology. Fairly extensive bibliographies at ends of chapters. "There is no doubt that this work deserves the position it has earned as the best account, at moderate length, of our present knowledge of human embryology." F. Goldby, J Anat 97:296, 1963

Langman, Jan. Medical embryology; human development--normal and abnormal. Baltimore, Williams and Wilkins, 1963. 335 p.

Designed to give future doctors a concise, well illustrated presentation of essential facts. Each chapter on development of organ systems is complemented by description of possible malformations. One chapter devoted to etiology of congenital defects. Chapters have relatively brief bibliographies. "This volume gives a concise, up-to-date and well-arranged account of normal and abnormal human prenatal development . . . .some expansion would make it an even more important addition to embryology texts." Med J Aust 1:277, 1964

Marshall, F. H. A. Physiology of reproduction. 3d ed. Edited by A. S.Parkes. London, Longmans, Green, 1952-60. 2 v. in 3 pts.

Attempt to maintain exhaustive treatment of subject as in earlier editions, but is now written by multiple authors. V. 1 (2 pts) deals with events up to and including fertilization. V. 2 deals with embryonic and foetal development and physiology, lactation, and certain general problems. Quite extensive bibliographies at ends of chapters. "The present book [V. 1, Pt. 2]. . .sets out to be comprehensive if not exhaustive. . . .The standard of scholarship displayed by the eight distinguished authors is awesome. . . ." B. A. Cross. Brit Med Bull 17:175, 1961

Raven, C. P. Oogenesis: the storage of developmental information. New York, Pergamon, 1961. 274 p.

Considers such topics as, embryonic development as communication problem, formation of egg cells, egg nucleus during oogenesis, cytoplasm and inclusions, metabolism of oocytes, polarity and symmetry, storage of developmental information, and information theory and biology. 20-page bibliography. "As a review of a very specialized subject this is an excellent publication covering many different facets of the problem. . . .This book serves as an excellent illustration of the overlap of different disciplines that is now occurring within the field of genetics." Eugen Rev 54:45-6, 1962

Willis, R. A. The borderline of embryology and pathology. 2d ed. Washington, Butterworth, 1962. 641 p.

Designed not only for pathologists and embryologists but for pediatricians and other clinicians. 2d ed includes new chromosome studies, shedding light on various anomalies. Photographs and photomicrographs are from author's personally studied material for most part. Extensive bibliographies at ends of chapters. "This magnificent book represents a new departure in both embryology and pathology. . . .It is beautifully produced and illustrated and the bibliography is extensive so that it will prove an invaluable work of reference." Proc Royal Soc Med 52:82, 1959

Young, W. C., ed. Sex and internal secretions. 3d ed. Baltimore, Williams and Wilkins, 1961. 2 v.

Drastic changes since 2d ed (1939). V. 1, Biological basis of sex; hypophysis and the gonatrophic hormones in relation to reproduction; physiology of the gonads and accessory organs. V. 2, Biology of sperm and ova; fertilization, implantation, the placenta, and pregnancy; physiology of reproduction in submammalian vertebrates; hormonal regulation of reproductive behavior. Extensive bibliographies at ends of chapters.

Zuckerman, Solly, ed. The ovary. New York, Academic Press, 1962. 2 v.
Attempt to provide comprehensive review of literature on physiology of ovary. Chapters written by authorities on particular aspects of subject. Quite extensive bibliographies at ends of chapters. "There can be nothing but praise for the editor, his assistant editors and all the contributors for producing such a monumental work which encompasses so many and varied aspects of the ovary. The books have much to offer to anatomists, endocrinologists, gynaecologists, histologists, physiologists, and should be read by all interested in the physiology of reproduction." W. J. Hamilton. J Anat 97:137, 1963

G E N E T I C S

Hadorn, Ernst. Developmental genetics and lethal factors. Trans. by U. Mittwoch. London, Metheun, 1961. 355 p.
According to author, book is based on results from research in both genetics and experimental embryology. Designed as contribution to general and special pathology of development based on study of lethal factors. 32-page bibliography. "In the area of developmental genetics Ernst Hadorn is one of the leading figures today. . . .The material covered in Hadorn's book ranges from Neurospora through insects and birds to mammals and man. . . .the study of this book is both an obligation and a genuine pleasure." S. G. Waelsch. Eugen Quart 7: 166-7, 1961

Howells, W. W., comp. Ideas on human evolution. Selected essays, 1949-1961. Cambridge, Mass., Harvard University Press, 1962. 555 p.
Papers selected to represent leading writers with varied points of view and also to make available papers not easily accessible for students. Extensive bibliography. "This is one of those books which it is impossible for one person to review in the true sense of the word: one can only indicate the content and recommend it to the reader. . . .a twenty-three page bibliography. . .could hardly be more comprehensive, ranging as it does from the works of Darwin and Huxley to those of present day authorities." Eugen Rev 54:220, 1962

Lenz, Widukind. Medical genetics. Trans. by E. F. Lanzl. Chicago, University of Chicago Press, 1963. 218 p.
Designed primarily for persons with medical background but no knowledge of genetics. Book in five sections: general introduction, nature of genes, simple effects of genes, mutations, and composite gene effects. Appendices contain human genetics terminology and medical glossary. 17-page bibliography. "This is a translation of the original German edition which was published in 1961. However, the text shows relatively few signs of age although the references extend only to 1960. . . .This work deserves a strong recommendation for its accurate coverage of a wide field. . . ." David Wise. Bull Hopkins Hospital 113:95, 1963

Muller, H. J. Studies in genetics; the selected papers of H. J. Muller. Bloomington, Indiana University Press, 1962. 618 p.

Published in honor of author's 70th birthday. Papers selected by author himself to include a larger portion of earlier writings rather than later ones. Complete chronological listing of author's works (336) included. "While this /book/ will be of particular interest to Professor Muller's many friends, it will also be of interest to the history of genetics and useful for graduate student reading." C. N. Herndon. Amer J Hum Genet 15:221, 1963

Peters, J. A., ed. Classic papers in genetics. Englewood Cliffs, N. J., Prentice-Hall, 1959. 282 p.

28 papers (1865-1955) selected for various reasons, such as, illustrating the impact of genetics on biology, providing examples of the use of scientific reason, and so on. Among those authors represented are Mendel, Morgan, Sturtevant, Muller, Beadle, Tatum, Lederberg, Watson, Crick. "It is thus very convenient to have a collection of classic papers in genetics in a single volume and cheap enough for the students to acquire. . . .This is a useful book, and it is to be hoped that similar anthologies. . .will be published in the future." H. Grüneberg. Eugen Rev 52:110, 1960

Sager, R., Ryan, F. J. Cell heredity; an analysis of the mechanisms of heredity at the cellular level. New York, Wiley, 1961. 411 p.

Textbook which attempts to review progress in molecular genetics since 1940. Liberally illustrated. Brief bibliographies at ends of chapters. "Sager and Ryan have written the first really adequate text to treat molecular genetics, not as the end of the story, but as the logical starting point for an exposition of the whole subject." J. M. Smith. Ann Hum Genet 25:421, 1962

Stern, Curt. Principles of human genetics. 2d ed. San Francisco, Freeman, 1960. 753 p.

Textbook designed for students of genetics, medical students, and students whose primary interest is in other fields of science. Problems and bibliographies at ends of chapters. "The writing is clear and economical. . . .it is a valuable reference book especially since it is well documented. . . .This book provides a remarkably complete survey of our present knowledge. . . ." Eugen Rev 54:36, 1962

Taylor, J. H., ed. Molecular genetics. New York, Academic Press, 1963- . Part 1. 544 p.

Ten chapters written by experts in the field. First five chapters deal with DNA, next two with biosynthesis of RNA, and the last three with genetic aspects of protein synthesis and the genetic code. Extensive bibliographies with chapters. "In general each author has adhered remarkably well to the stated aim of providing a readable, very current account of the major streams of research in his own area of specialization." J Chem Ed 40:A430, 1963

Vogel, Friedrich. Lehrbuch der allgemeinen humangenetik. Berlin, Springer, 1961. 753 p.

German counterpart of Stern's Principles of human genetics. Comprehensive work on whole field of human genetics. 50-page bibliography, arranged by chapter topics. "The book will go a long way toward restoring the traditional place of German workers in medical genetics among the progressive and social-minded life scientists of the Western World." E. V. Glanville, F. J. Kallman. Amer J Hum Genet 14:437, 1962

H I S T O C H E M I S T R Y

Glick, David. Quantitative chemical techniques of histo- and cytochemistry. New York, Interscience Publishers, 1960-2. 2 v.

Restricted to techniques developed specifically for histo- and cytochemical work and do not include many microtechniques for blood, urine, etc. Book requires elementary knowledge of quantitative chemical analysis. Extensive bibliographies with both volumes. "This volume [17] provides a detailed presentation of the available quantitative techniques . . . .The presentations are clear and detailed, and documented by a 24-page bibliography." C. N. Herndon. Amer J Hum Genet 15:120, 1963

Pearse, A. G. E. Histochemistry; theoretical and applied. 2d ed. London, Churchill, 1960. 998 p.

Attempt to encompass whole field of histochemistry. Any methods not actually tested in author's laboratory are indicated. Theoretical considerations given and then practical procedures for each test. Brief to extensive bibliographies at ends of chapters. "Pearse's new work is the most recent and most comprehensive book on this subject. . . .The bibliography is extensive and the index is excellent." Clin Chem 7:300, 1961

Bloom, W., Fawcett, D. W. A textbook of histology. 8th ed. Philadelphia. Saunders, 1962. 720 p.

Latest edition of Maximow's textbook. Designed especially for medical students. Extensively revised, especially in light of advances in electron microscopy. Bibliographies, ranging from brief to moderate length, at ends of chapters. "As a textbook addressed to students of medicine and biology, it is eminently informative, readable, up-to-date, and therefore, highly recommended." N. D. Fabricant. JAMA 182:1139, 1962

Ham, A. W., Leeson, T. S. Histology. 4th ed. Philadelphia, Lippincott, 1961. 942 p.

Textbook for first course in histology. Most notable changes from 3d ed (1957) are in discussions of histochemistry, radio-autography, and fluorescence microscopy. 589 figures. Bibliographies at ends of chapters grouped into general and special references. "It is reasonably compact, beautifully illustrated, lucidly written and so well up to date that, starting from the bibliographies at the end of each chapter, the hunt for detailed references and information about the very latest work is much shortened." J Path Bact 85:256, 1963

McManus, J. F. A., Mowry, R. W. Staining methods; histologic and histochemical. New York, Hoeber, 1960. 423 p.

Intended as handbook integrating newer methods of tissue examination into standard laboratory procedures. Includes special section of recommended methods for study of specific organs and tissues. 11-page bibliography. "This book. . .will be a valuable addition to many histologic and histochemical laboratories since both of the authors are renowned authorities with extensive laboratory experience. . . .Among the outstanding sections are those on the carbohydrates and on histochemistry." R. E. Stowell. Amer J Clin Path 37:90, 1963

Rhodin, J. H. G. An atlas of ultrastructure. Philadelphia, Saunders, 1963. 222 p.

Presupposes comprehensive knowledge of normal mammalian histology. Intended as supplement to usual textbooks of histology. Bibliography of 1590 items. ". . . .if students are to regard biochemistry as a science of functions with structural foundation, they must see the machinery of metabolism. This need will be met by Dr. Rhodin's magnificent Atlas which presents a superb collection of electron micrographs. . . ." E. J. Huth. Ann Int Med 59:128, 1963

Stöhr, Philipp. Lehrbuch der histologie und der mikroskopischen anatomie des menschen. Edited by K. Goerttler. 29th ed. Jena, Fischer, 1963. 606 p.
For first time this textbook contains contributions of several authors, rather than just one, especially in fields of cytology, electron microscopy, histochemistry. 19 new illustrations bring total to 519 in this edition. No bibliography. "Maintaining its classical format and modes of description, this volume marks the 29th edition of a famous text first published in 1887. Relatively little attention is paid to electronmicroscopy and the lack of bibliography remains a drawback; however, the volume is superb in its traditional presentation. . . ." JAMA 185:58, 1963

I M M U N O L O G Y

Crowle, A. J. Immunodiffusion. New York, Academic Press, 1961. 333 p.
Immunodiffusion within past ten years has developed into widely used analytic method; author attempts to bring together information about historical development as well as about current techniques. 17-page bibliography. "The recent publication of a comprehensive book dealing with all aspects of immunodiffusion was. . .overdue. The book by Alfred J. Crowle is therefore a valuable reference work for every scientist who plans to use either immunodiffusion, double diffusion, or single diffusion." L. Korngold. Arch Biochem 99:199, 1962

Cushing, J. E., Campbell, D. H. Principles of immunology. New York, McGraw-Hill, 1957. 344 p.
Brings together interrelations of immunology and such diverse fields as population genetics, embryological development, fertilization, and antigenic individuality. Outlines of immunochemistry. Moderate length bibliographies with each chapter. "It is a cultural book suitable for use not only for colleges but also for biologists and immunologists. Immunologists will be benefited by it in expanding the scope of their informatory background and in getting acquainted with the ramifications of the subject." M. G. Sevag. Arch Biochem 81:530, 1959

Kabat, E. A., Mayer, M. M. Experimental immunochemistry. 2d ed. Springfield, Ill., Thomas, 1961. 905 p.
Extensive revision of 1st ed (1948). Four main parts: immunological and immunochemical methodology; applications and uses of quantitative immunochemical methods; chemical and physical methods and special procedures; preparations. Moderate length bibliographies with individual chapters. "The second edition of this classic volume is a superb treatise on experimental immunology. . . .Each chapter has an excellent bibliography. . . ." W. Kaufman. Int J Allergy 20:380, 1962

Mackay, I. R., Burnet, F. M. Autoimmune diseases; pathogenesis, chemistry, and therapy. Springfield, Ill., Thomas, 1963. 323 p.

Written primarily for physicians to explain possible ways immune mechanisms of the body are turned against the body's own components. Presents general character of autoimmune diseases and then considers autoimmunity in relation to specific diseases. Bibliography, arranged by chapter headings, at end of book.

Raffel, Sidney. Immunity. 2d ed. New York, Appleton-Century-Crofts, 1961. 646 p.

Revision and expansion of 1st ed (1953). Four sections: fundamental aspects of immunity; hypersensitivity; mechanisms of resistance in various infectious diseases; serology and antigenic systems. Extensive bibliography for each chapter. "Not only is this a valuable reference book, it is eminently readable and there are, incidentally, many cross references. Diagrams and charts are agreeably simple and lucid. . . ." D. H. Cannon. Brit Med J No. 5298:167, 1962

M E D I C A L E N T O M O L O G Y

Arthur, D. R. Ticks and disease. Oxford, Pergamon Press, 1962. 445 p.

Intended as summary and evaluation of major trends in development of tick studies. Covers literature up to 1957 with a few later papers. References arranged by chapter headings at end of book. "As an account of the morphology and biology of ticks in general the book will be a great help to undergraduate and graduate students as well as to the interested layman." M. G. R. Varma. Brit Med J No. 5308:839, 1962

Christophers, S. R. Aedes aegypti (L.), the yellow fever mosquito; its life history, bionomics and structure. Cambridge, Eng., Cambridge University Press, 1960. 738 p.

Comprehensive account of what is known about this species, which is of particular importance not only because of its role as vector of yellow fever and dengue but also because of its use in research to study structure, bionomics, behavior, and evaluation of insecticides. Extensive bibliographies with each chapter. "Among the numerous noteworthy features of this book are the excellent original illustrations and the meticulous documentation of references. . . ./the author/ has succeeded in producing a book which will be consulted frequently by persons concerned with various aspects of biology. . . ." H. S. Fuller. Amer J Trop Med 10:113, 1961

Herms, W. B. Medical entomology. 5th ed. Revised by M. T. James. New York, Macmillan, 1961. 616 p.

In this edition material not primarily medical is reduced or deleted. Chapters deal with various groups of arthropods (such as mosquitoes, fleas, flies, ticks) and their relation to disease. Each chapter has a fairly extensive bibliography. "This is an authoritative book whose lineage goes back unbroken for forty-five years, with an impressively complete revision by the present author. . . .for the medical student, this should be a reference source of his acquaintance, and for the family physician this should be in his organizational library." Southern Med J 55:762, 1962

Horsfall, W. R. Medical entomology; arthropods and human disease. New York, Ronald Press, 1962. 467 p.

Attempt at a "thorough exposition of extrinsic ecology of arthropod and arthropod-borne vertebrate pathogens." Three main sections: habits, morphology, and relationships of medically important categories; their causes of human distress; pathogens depending wholly or in part on these arthropods for transport. Brief lists of additional readings with individual chapters. 30-page bibliography.

M E D I C A L S T A T I S T I C S

Croxton, F. E. Elementary statistics with applications in medicine and the biological sciences. New York, Dover, 1959.

No previous knowledge of statistics supposed. Vocabulary of symbols precedes each chapter. Practically all numerical illustrations based on actual, not hypothetical, data. A few references are given (in footnote form). ". . . .its title is quite accurate, for it explains the elementary methods with the aid of examples taken from the stated fields. The level of mathematics required is moderate, including a fair amount of algebra but not calculus." G. M. Clarke. Ann Appl Biol 48:197, 1960

M I C R O B I O L O G Y

General

Bailey, W. R., Scott, E. G. Diagnostic microbiology; a textbook for the isolation and identification of pathogenic microorganisms. St. Louis, Mosby, 1962. 327 p.

Intended also as a reference book for medical bacteriological laboratories. Includes background information on cultivation, collecting and handling of specimens as well as procedures for identifying common and rare pathogens. Chapters have brief bibliographies. "The well-planned book contains a wealth of practical information not available in this form in any other textbook of microbiology. . . ./it/ should be widely accepted by diagnostic laboratories. . . ." Canad Med Ass J 87:885, 1962

Burrows, William. Textbook of microbiology. 18th ed. Philadelphia, Saunders, 1963. 1155 p.

Much rewriting and addition of material since 17th ed (1959). Well-known text designed primarily for students of microbiology. Liberally illustrated with drawings, tables, photographs. Extensive bibliographies with each chapter. "New material and important recent references have been added. For clarity of exposition, excellence of illustrations, breadth of coverage, and usefulness to the student, this new edition maintains its well-deserved position among leading texts in microbiology." JAMA 185:895, 1963

Frobisher, Martin. Fundamentals of microbiology. 7th ed. Philadelphia, Saunders, 1962. 610 p.

Extensive revision of 6th ed (1957). Medical discussions minimized and emphasis placed on industrial and practical aspects of subject. Profusely illustrated. Bibliographies of moderate length with each chapter. "The volume is well written, excellently published, with splendid photomicrographs and diagrams. . . .The references are current and extremely well chosen. Altogether, the book is thoroughly admirable and is to be highly recommended." L. S. King. JAMA 184:988, 1963

Kavanagh, Frederick, ed. Analytical microbiology. New York, Academic Press, 1963. 707 p.

Aim of book is to provide theoretical bases for methods of assay developed for antibiotics, vitamins, amino acids and to provide survey of literature. 17 contributors. First part devoted to theory and second part with specific methods of assay. Extensive references given in footnote form.

Miller, M. W. The Pfizer handbook of microbial metabolites. New York, McGraw-Hill, 1961. 772 p.

Compilation of source and physical, chemical and physiological properties of metabolic products isolated from bacteria, molds, fungi, and lichens. Chapters outlining biogenesis of various structural types elaborated mainly by microorganisms. References in footnote form. "The 'Pfizer Handbook' represents the first (and amazingly satisfactory) encyclopedic summary of /these/ important data. . . .In addition, the author has compiled and classified significant references to the original basic work. . . ." P. R. Beamer. Amer J Clin Path 38:189, 1962

Rosebury, Theodor. Microorganisms indigenous to man. New York, McGraw-Hill, 1962. 435 p.

For the first time material on normal flora of man has been gathered together in book form. Chapters devoted to various types of organisms, such as indigenous cocci, positive bacilli, spirochetes, fungi. Extensive bibliographies accompany chapters.

Topley, W. C. C. Principles of bacteriology and immunity. 4th ed. By G. S. Wilson, A. A. Miles. London, Arnold, 1954. 2 v.
Intended primarily for graduate students and research workers. V. 1, General bacteriology and systematic bacteriology. V. 2, Infection and resistance and application of bacteriology to medicine and hygiene. Indexes for both volumes in each volume. Very extensive bibliographies with each chapter. "It is a book without peer in its own line; one is continually astonished when reading it, not only by the vast knowledge of their subject that the authors display, but even more by the clarity and sanity of their comments." J Path Bact 74:465, 1957

Wildführ, Georg. Medizinische microbiologie, immunologie und epidemiologie. Leipzig, Thieme, 1959. 2 v.
Intended as comprehensive work for medical students, practicing physicians, microbiologists, and public health physicians. V. 1, includes historical review, general morphology, fundamentals of immunity, discussions of various types of organisms. V. 2, includes spirochetes, viruses, bacteriophages, pathogenic protozoa. Very extensive bibliography, grouped by subject, at end of second volume. "Following a novel style and effective method of presentation, the author. . .has fully succeeded in condensing in two volumes medical microbiology, immunology and epidemiology. . . .The specialist will . . .derive great benefit from the elaborate text and consult it as a reference volume." K. F. Meyer. Amer J Trop Med 11:585-6, 1962

Zinnser, Hans. Microbiology. 12th ed. Edited by D. T. Smith and others. New York, Appleton-Century-Crofts, 1960. 1026 p.
Designed primarily for medical students and physicians. Many revisions and additions since 11th ed (1957), notably addition of parasitology. Bibliographies of moderate length with chapters. "Originally published in 1910 by Hiss and Zinnser. . .this book remains a definitive and outstanding reference in its field." W. G. Brandstadt. JAMA 174:1753, 1960

Bacteria

Breed, R. S. and others. Bergey's Manual of determinative bacteriology. 7th ed. Baltimore, Williams and Wilkins, 1957.
Thoroughgoing revision of 6th ed (1948) but latter must still be used for inadequately described species until Index Bergeyiana is published. Section on viruses eliminated until satisfactory taxonomy and classification worked out. "However bad bacterial classification is, classification of some kind there must be, for convenience, and 'Bergey' provides something as reasonable as is present practicable. There is nothing else like 'Bergey' let alone better. . . ." J Path Bact 78:318, 1959

Bulloch, William. History of bacteriology. London, Oxford University Perss, 1938. (Reprinted 1960) 422 p.

Grew out of lectures delivered in 1937. Carries subject only up to beginning of twentieth century. Contains 63-page bibliography, in which references are grouped by chapter headings. Section of brief biographical sketches. "Professor Bulloch gives a scholarly and very readable account of the development of bacteriology from the earliest times until the beginning of the twentieth century. The book contains an exhaustive bibliography. . . .There is a generous number of portraits and some interesting illustrations from original publications." S. E. Reed. Immunology 4:94, 1961

Elek, S. D. Staphylococcus pyogenes and its relation to disease. Edinburgh, Livingstone, 1959. 767 p.

Compilation of information from different fields and comprehensive bibliography of most important papers on this organism. Ranges from historical survey through problems of taxonomy, metabolism, virulence, to effects of antibiotics. 187-page bibliography. "For the first time, the diffuse and confused experimental literature on staphylococcal disease has been collected, organized, and critically analyzed. . . .this is a magnificent book." D. E. Rogers. Amer J Trop Med 8:524-5, 1959

Gunsalus, I. C., Stanier, R. Y., eds. The bacteria; a treatise on structure and function. New York, Academic Press, 1960- . 5 v. proposed. 4 v. published.

Designed as a comprehensive source of information about general and biological properties of bacteria. Chapters contributed by experts in particular fields. V. 1, Structure. V. 2, Metabolism. V. 3, Biosynthesis. V. 4, Growth. V. 5, Heredity. Extensive bibliographies with each chapter. "The literature is well covered, critical assessments and exposition is high throughout." Sci Prog 49:186, 1961

Jacob, F., Wollman, E. L. Sexuality and the genetics of bacteria. New York, Academic Press, 1961. 374 p.

Attempt to summarize present knowledge about process of sexual conjugation in bacteria and its use as genetic system for research in cellular genetics. 22-page bibliography. "As time is limited, experimenters are rarely authors: it is all the more welcome that Jacob and Wollman, two leaders in bacterial sexual processes, should give this full account of their own and others' work. . . ." J Path Bact 84:451, 1962

Thimann, K. V. The life of bacteria; their growth, metabolism, and relationships. 2nd ed. New York, Macmillan, 1963. 909 p.

Many alterations since 1st ed (1955). Four main sections: morphology and general physiology of bacteria; role of microorganisms in the nitrogen cycle: metabolism of carbohydrates; growth and synthesis. Extensive bibliographies at ends of chapters.

Dental Microbiology

Burnett, G. W., Scherp, H. W. Oral microbiology and infectious disease; a textbook for students and practitioners of dentistry. 2d ed. Baltimore, Williams and Wilkins, 1962. 1003 p.

Considerable revision since 2d ed (1956). Five main sections: origins, development and scope of microbiology; systematic microbiology; infection and resistance; oral infections; infectious diseases. Brief bibliographies, consisting primarily of books and review articles, at ends of chapters. "This should be an excellent text for use in teaching of dental students and it could also be used with equal value by medical students and physicians." Amer J Med Sci 245:384, 1963

Fungi

Cook, A. H., ed. The chemistry and biology of yeasts. New York, Academic Press, 1958. 763 p.

Designed to bring together widely scattered information about yeasts. Sixteen authorities contributed chapters on classification, ecology, life history and cytology, genetics, chemical composition, growth, and so on. Extensive bibliographies with each chapter. "This book will be invaluable in any laboratory concerned not only with fermentation but also with other biochemical and biological processes. It is well produced and should hold the field for some time as the chief textbook on yeasts." H. J. Bunker. Sci Prog 46:740, 1958

Sakaguchi, K., Abe, S., eds. Atlas of microorganisms--the penicillia. Tokyo, Kenehara Shuppan, 1957. 319 p.

Text in both Japanese and English. Profusely illustrated with photographs, black and white and colored. Introduction contains list of antibiotics and products of penicillia as well as brief bibliography. Discussion of culture media, systematic classification, and descriptions of individual species.

Waksman, S. A. The actinomycetes. Baltimore, Williams and Wilkins, 1959-62. 3 v.

In part, a record of author's research over almost half a century. Excludes all mycobacteria and corynebacteria. V. 1, Nature, occurrence, and activities. V. 2, Classification, identification and descriptions of genera and species. V. 3, Antibiotics of actinomycetes. Very extensive bibliographies at ends of first two volumes. V. 3 has bibliographies of moderate length at ends of chapters and also with descriptions of individual antibiotics. "This treatise is written with admirable lucidity and prevision. . .it will become a standard book of reference on the subject." Med J Australia 2:65, 1960

Viruses

Adams, M. H. Bacteriophages. New York, Interscience Publishers, 1959. 592 p.
First book on subject in thirty years which is reasonably complete. Four chapters written by other authors after Adams' death (1956). Quite extensive bibliography (43 p.) at end of book. "This book will be indispensable to all practicing phage workers. It will unquestionably be the most effective means for introducing new students into phage research. Even more important may be its function in presenting this research in a coordinated, simple, but not elementary, fashion. . . ." S. E. Luria. Arch Biochem 84:553, 1959.

Burnet, F. M., Stanley, W. M. The viruses; biochemical, biological, and biophysical properties. New York, Academic Press, 1959-60. 3 v.
First systematic attempt in English to "cover the significance of experimental work on viruses for general problems within and on the borderlines of biochemistry, biology, and biophysics." Multiple contributors. V. 1, General virology. V. 2, Plant and bacterial viruses. V. 3, Animal viruses. Chapters have extensive bibliographies. "No detailed presentation of facts about individual viruses is intended, but rather a full account aimed at integrating virology into the body of biological knowledge. Thirty-four authors from 8 countries have joined in writing all 36 chapters. Most of these are excellent. . . ." J Path Bact 80:463, 1960

Burnet, F. M. Principles of animal virology. 2nd ed. New York, Academic Press, 1960. 490 p.
Almost half of 1st ed (1955) replaced. After historical introduction and general outline of problems of general virology then follow chapters on such topics as, the properties of pathogenic viruses, pathogenesis of virus diseases, immunity, relation of virus to neoplastic diseases, and the like. Unusually extensive bibliographies at ends of chapters. "Both the old and new editions bring together pertinent information from a large and diversified field, and digest and interpret it in a far more unified manner than is usually attainable in the multi-authored books now so prevalent." D. H. Moore. Arch Biochem 92:196, 1961

Veterinary Microbiology

Merchant, I. A., Packer, R. A. Veterinary bacteriology and virology. 6th ed. Ames, Iowa State University Press, 1961. 899 p.
Intended as resource book for veterinarians in practice, research, and in official livestock disease control. Emphasizes microorganisms pathogenic to animals but also gives information about certain pathogens of man. Brief bibliographies at ends of chapters. "While this edition would have wide application as a reference for veterinarians in the field of private practice. . .it would have limited value for those engaged in advanced research. . . .The authors have made a commendable presentation. . . ." C. H. Cunningham. J Amer Vet Med Ass 142:665, 1963

Chandler, A. C., Read, C. P. Introduction to parasitology. 10th ed. New York, Wiley, 1961. 822 p.

Extensive revision since 9th ed (1955). New and up-to-date systems of classification adopted. Emphasis placed on biological aspects of subject rather than on clinical features of diseases. Brief bibliographies at ends of chapters. "The hand of the old master [the late Asa C. Chandler] is still evident, but his pupil has learned well and will carry the same high standard into a more modern period. There is no reason to expect this book to become obsolete by reason either of changed authorship or the changed viewpoint of a new generation." J. A. Scott. Amer J Trop Med 10:791-2, 1961

Faust, E. C. and others. Animal agents and vectors of human disease. 3d ed. Philadelphia, Lea and Febiger, 1962. 485 p.

Textbook of medical parasitology. Thorough revision of 1st ed (1955). Five sections: general principles, protozoa, helminths, arthropods as agents and vectors, technical aids. Moderate length bibliographies with individual chapters. "This is a very fine book with many admirable features, especially the 7 tables, the 10 plates, and the 195 illustrations." C. L. Birch. Amer J Trop Med 11:873, 1962

Mackinnon, D. L., Hawes, R. S. J. An introduction to the study of protozoa. Oxford, Clarendon, 1961. 506 p.

For each organism studied a description is given of the living state and the fixed, stained preparation. The first 4 sections of book are devoted to classes of protozoa and 5th section to methods in protozoology. 38-page bibliography.

Markell, E. K., Voge, M. Diagnostic medical parasitology. Philadelphia, Saunders, 1958. 276 p.

Selection of methods considered to be of greatest practical value. Designed to be used in connection with course or independently in laboratory. Chapters on general parasitism, intestinal protozoa and helminths, procedures in examination for blood parasites, malaria, and so on. References cited in text are listed at end of book. "It was designed primarily for medical students. . . .It should be of great value also in training laboratory technologists. . . .The drawings and photographs are excellent and those dealing with malaria parasites are in color." JAMA 167:1571, 1958

Rogers, W. P. Nature of parasitism; the relationship of some metazoan parasites to their hosts. New York, Academic Press, 1962. 287 p.

Designed to stimulate research on parasitism. Chapters grouped in four parts corresponding roughly to different stages in association between metazoan parasite and host. Moderate length bibliographies with chapters. "The amounts of speculation and fact are nicely balanced. . .without being confused and the generalizations are soundly based on fact. . . .I have no reservations in recommending this stimulating book." H. R. Wallace. Ann Appl Biol 51:351, 1963

Spencer, F. M., Monroe, L. S. The color atlas of intestinal parasites. Springfield, Ill., Thomas, 1961. 142 p.
Designed to instruct technical laboratory worker in methods for preparation, examination and accurate diagnosis of human parasitic infections. This is first book to provide opportunity for self-instruction. Brief bibliography. "This color atlas is a unique publication of greatest value. The authors. . .make available, in 232 excellent photomicrographs, illustrations of the whole series of helminthic ova, protozoa and flagellates as they appear in intestinal infestations." Canad Med Ass J 86:1090, 1962

Watson, J. M. Medical helminthology. London, Bailliere, Tindall and Cox, 1960. 487 p.
Attempt to fill need of concise, up-to-date handbook on human helminthology. Emphasizes most recent and, what author considers, most important information. Includes historical review, nature of parasitism, systematic account of helminths parasitic in man, and clinical and public health aspects of helminthic infections. No list of references cited, but bibliography at end of book lists additional readings. ". . . .the book is an excellent compendium of information, much of which cannot be found elsewhere in any one place. Factual information seems for the most part to be remarkable accurate, inclusive and up-to-date." J. A. Scott. Amer J Trop Med 10:291, 1961

P H Y S I O L O G Y

Bard, Philip, ed. Medical physiology. 11th ed. St. Louis, Mosby, 1961. 1315 p.
Designed especially as text for medical students and as reference book for practicing physicians. Many chapters rewritten since 10th ed (1956). Brief bibliographies at ends of chapters. "This work can be recommended for students of medicine to give a comprehensive modern view of mammalian physiology in almost every section as it exists today." Amer J Med Sci 244:393, 1962

Best, D. H., Taylor, N. B. Physiological basis of medical practice. 7th ed. Baltimore, Williams and Wilkins, 1961. 1554 p.
Extensive revision since 6th ed (1955), particularly of sections on circulation and on physiology of blood. Book gives greater prominence to clinical aspects than is usual in textbooks of physiology. 28 contributors. Extensive bibliographies. ". . . .the practicing physician is the more grateful for this work which serves as a link between the laboratory and the clinic. Seven English editions plus 25 reprintings, 5 Spanish editions, 2 Portuguese and one Italian attest the value of this excellent work." Amer J Med Sci 243:535, 1962

Spencer, F. M., Monroe, L. S. The color atlas of intestinal parasites. Springfield, Ill., Thomas, 1961. 142 p.
Designed to instruct technical laboratory worker in methods for preparation, examination and accurate diagnosis of human parasitic infections. This is first book to provide opportunity for self-instruction. Brief bibliography. "This color atlas is a unique publication of greatest value. The authors. . .make available, in 232 excellent photomicrographs, illustrations of the whole series of helminthic ova, protozoa and flagellates as they appear in intestinal infestations." Canad Med Ass J 86:1090, 1962

Watson, J. M. Medical helminthology. London, Bailliere, Tindall and Cox, 1960. 487 p.
Attempt to fill need of concise, up-to-date handbook on human helminthology. Emphasizes most recent and, what author considers, most important information. Includes historical review, nature of parasitism, systematic account of helminths parasitic in man, and clinical and public health aspects of helminthic infections. No list of references cited, but bibliography at end of book lists additional readings. ". . . .the book is an excellent compendium of information, much of which cannot be found elsewhere in any one place. Factual information seems for the most part to be remarkable accurate, inclusive and up-to-date." J. A. Scott. Amer J Trop Med 10:291, 1961

P H Y S I O L O G Y

Bard, Philip, ed. Medical physiology. 11th ed. St. Louis, Mosby, 1961. 1315 p.
Designed especially as text for medical students and as reference book for practicing physicians. Many chapters rewritten since 10th ed (1956). Brief bibliographies at ends of chapters. "This work can be recommended for students of medicine to give a comprehensive modern view of mammalian physiology in almost every section as it exists today." Amer J Med Sci 244:393, 1962

Best, D. H., Taylor, N. B. Physiological basis of medical practice. 7th ed. Baltimore, Williams and Wilkins, 1961. 1554 p.
Extensive revision since 6th ed (1955), particularly of sections on circulation and on physiology of blood. Book gives greater prominence to clinical aspects than is usual in textbooks of physiology. 28 contributors. Extensive bibliographies. ". . . .the practicing physician is the more grateful for this work which serves as a link between the laboratory and the clinic. Seven English editions plus 25 reprintings, 5 Spanish editions, 2 Portuguese and one Italian attest the value of this excellent work." Amer J Med Sci 243:535, 1962

Bykov, K. M., ed. Textbook of physiology. By K. M. Bykov and others. 2d ed. Trans. by S. Belsky, D. Myshne. Moscow, Foreign Languages Publishing House, 1960. 763 p.

Authors have tried to reflect as fully as possible ideas introduced by Pavlov. Book divided into 15 parts, each written by one of the five authors. Although many references are made to foreign investigators, complete citations for works are few and are given for only Russian authors, notably Pavlov. "There are numerous standard textbooks in the Western world on the subject but it is rare to find such a book which reflects the views and concepts of physiologists of the USSR. . . . Although first published in 1939, the book has been largely rewritten to include current ideas on the Pavlovian concept of conditional reflexes. . . ." L. M. Croton. J Int Sci Tech 5:31, 1959

Consolazio, C. F. and others. Physiological measurements of metabolic functions in man. New York, McGraw-Hill, 1963. 505 p.

Divided into four main parts: Sections 1-5 deal with respiratory metabolism and pulmonary function. Sections 6-8, with body composition and metabolic balances. Sections 9-13, with applied physiology. Section 14, with limits of variability of some functions in man and with concept of homeostasis. References cited with individual methods and also at ends of sections. "A compilation and critical study of various methods devised to study metabolism. . . .Highly valuable for the specialist." JAMA 184:1058, 1963

Davson, H., Eggleton, M. G., eds. Starling and Lovatt Evans' Principles of human physiology. 13th ed. Philadelphia, Lea and Febiger, 1962. 1579 p.

Written by 11 contributors. Divided into 8 sections, covering broad topics, such as, systems for distribution of materials, excretion and temperature regulation, supplying of information--the special senses. Brief bibliographies and suggestions for further reading at ends of chapters. "The policy of clear and concise presentation of the fundamental substrate of physiology has been continued in the present 13th edition. The new editors are eminently qualified for their assignments. . . .Respiration and circulation are to be singled out for excellence of presentation." Amer J Med Sci 244:657, 1962

Handbook of physiology; a critical, comprehensive presentation of physiological knowledge and concepts. Washington, American Physiological Society, 1959- . Sect. 1, 3 v.; Sect. 2, 1 v. published to date.

Section 1. Neurophysiology. Edited by J. Field, H. W. Magoun, V. E. Hall. 3 v. 1959-60. Section 2. Circulation. Edited by W. F. Hamilton, P. Dow. 3 v. proposed. V. 1, 1962. Very extensive bibliographies accompany chapters written by experts in various fields. "The handbook is an essential for all medical and physiological libraries and many research laboratories." M. Van Allen. Arch Int Med 106:581, 1960

Ruch, T. C., Fulton, J. F., eds. Medical physiology and biophysics. 18th ed. Philadelphia, Saunders, 1960. 1232 p.

Latest edition of Howell's Textbook of physiology. New title reflects editors' idea that physiology should be developed and taught "in depth," attained by ranging from fundamental approaches through classic to clinical physiology. First section is on biophysics of cell membrane. Brief bibliographies at ends of chapters. "Although there is little that Howell would recognize as having ever been his, this remains one of the standards of excellence among textbooks of physiology. . . . Particularly good are the chapters on hemodynamics by Alan Burton, on control of cardiac output by Robert Kuchner, and on the kidney by Alan Koch." K. L. Zierler. Bull Hopkins Hosp 110:55, 1962

Wright, Samson. Applied physiology. Rev. by C. A. Keele, E. Neil. London, Oxford University Press, 1961. 555 p.

Designed primarily for medical students. Radical changes in nearly all sections since 9th ed (1952), including new format. Very brief bibliographies after various sections of book. ". . . .this is undoubtedly the best textbook of physiology published in this country /England/ at present in print, and is among the two or three best in the English language." D. Whitteridge. Quart J Exp Physiol 46:401, 1961

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